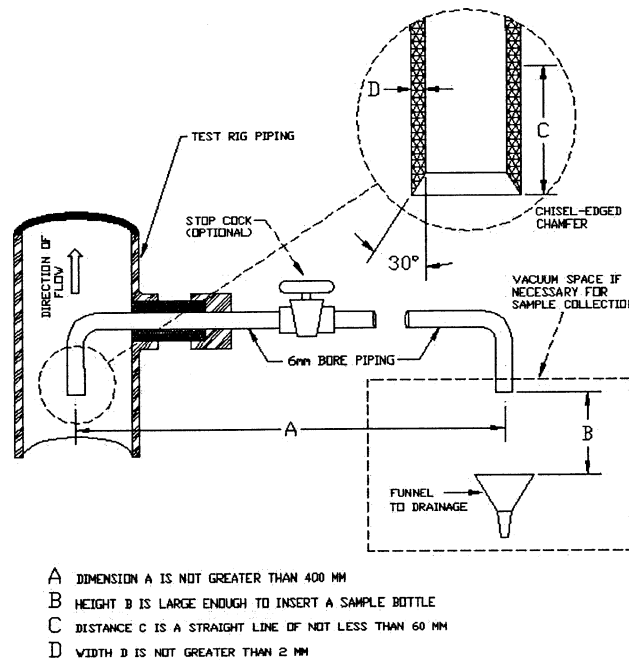


(d) Each sample point on a test rig must meet the design requirements described in Figure 162.050-17(d) and must

be in a vertical portion of the test rig piping.

FIGURE 162.050-17(d)—SAMPLE POINT



[CGD 76-088a, 44 FR 53359, Sept. 13, 1979, as amended by USCG-2004-18939, 74 FR 3384, Jan. 16, 2009]

§ 162.050-19 Oil content meter and bilge alarm test rig.

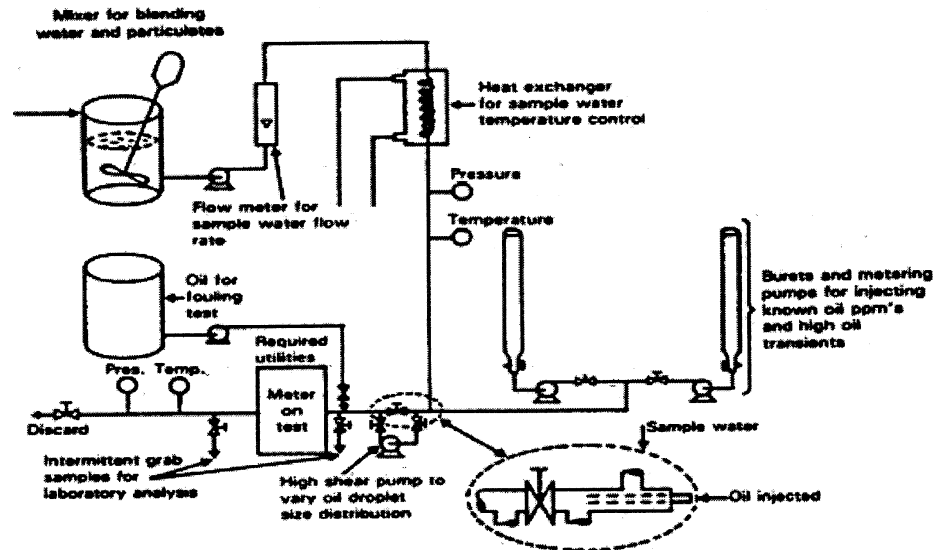
(a) This section contains requirements for test rigs used in approval testing of oil content meters and meter. A typical test rig is described in Figure 162.050-19. The mixture pipe shown in Figure 162.050-19 is the portion of test rig piping between the oil injection point and the meter or bilge alarm piping.

(b) Each sample point on a test rig must be of the type described in Figure 162.050-17(e) and must be in a vertical portion of the test rig piping.

(c) Each test rig must have a centrifugal pump that is designed to operate at 1,000 revolutions per minute or more.

(d) The mixture pipe on a test rig must have a uniform inside diameter.

FIGURE 162.050-19—MONITOR AND BILGE ALARM TEST RIG



[CGD 76-088a, 44 FR 53359, Sept. 13, 1979, as amended by USCG-2004-18939, 74 FR 3385, Jan. 16, 2009]

§ 162.050-20 Separator and bilge alarm test fluids.

(a) Tests required in §§162.050–23 and 162.050–35 must be performed using the following three types of test fluids:

(1) Test Fluid A, which is a marine residual fuel oil in accordance with ISO 8217 (incorporated by reference, see § 162.050-4, type RMG 380 (density at 15 °C not less than 980 kg/m³);

(2) Test Fluid B which is a marine distillate fuel oil in accordance with ISO 8217, type DMA (density at 15 °C not less than 830 kg/m³);

(3) Test Fluid C must be a mixture of an oil-in-fresh water emulsion, where 1 kg of the mixture consists of:

- (i) 947.8 g of fresh water;
- (ii) 25.0 g of Test Fluid A;
- (iii) 25.0 g of Test Fluid B;
- (iv) 0.5 g of surfactant (sodium salt of dodecylbenzene sulfonic acid) in the dry form; and
- (v) 1.7 g of iron oxides, a black ferrosoferric oxide (Fe_3O_4) with a particle size distribution of which 90 percent is less than 10 microns, the remainder having a maximum particle size of 100 microns.

(b) Test Fluid C must be prepared as needed for §162.050-23 or §162.050-35 by using the following procedures:

(1) Measure out 1.2 times the quantity of surfactant required from the WORKSHEET FOR DETERMINING CONSTITUENTS OF TEST FLUID C, see figure 162.050-20;

(2) Mix it with fresh water and stir well in a small container to make a mixture until the surfactant has been thoroughly dissolved, but use no more than the minimum amount of water necessary to make a complete solution;

(3) Fill clean test fluid tank with fresh water with a quantity 1.2 times the volume of the total quantity of water in Test Fluid C needed for the test described in §§162.050-23 and 162.050-35;

(4) Operate the centrifugal pump B running at a speed of not less than 3,000 rpm with a flow rate at which the volume of the test fluid has been changed out at least once per minute;

(5) Add the surfactant mixture from paragraph (b)(2) of this section first, followed by oil and suspended solids (iron oxides) respectively, both 1.2 times of the required amounts, to the fresh water in the tank;

(6) To establish a stable emulsion keep running the centrifugal pump B